

Work Order ID 145487

Thursday, May 05, 2016 3:14:46 PM

145487

Page 1

Item ID: D119-796-021 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: AW119 Standard Landing Gear Assembly - Standard OEM Protection
 Start Date: 5/11/2016 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 6/9/2016 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: 2m Date: 16/05/06 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D119-796-021	A								
IIN-D119-796	E								

MAY 26 2016

DAS
6
9-89

100

Pick Kit

0.00

100

Packaging

Memo

0.00

Packaging

Photocopy bluefile and create labels as per PPP D119-796-021 chg 003/ D119-646-041 paperwork

110

0.00

110

HandFinish

Memo

0.00

Hand Finishing

ASSEMBLE AS PER DWG AND NOTES 8,9,10,11

ASSEMBLE WITH PROSEAL BATCH: 134500

2-INSTALL DECAL D2729-4

DAS
36
9-89

1X

16/05/07

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Work Order ID 145487

Thursday, May 05, 2016 3:14:46 PM

145487

Page 2

Item ID: D119-796-021

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: AW119 Standard Landing Gear Assembly - Standard OEM Protection

Start Date: 5/11/2016 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 6/9/2016 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

120

QC5- Inspect part completeness to step on W/O

0.00

120

QC

Memo

0.00

Quality Control

JP
16-06-09

130

Identify as per dwg & Stock Location: *Ship*

0.00

130

Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPP D119-796-021

Location: _____

PPP Rev: _____

IX
16/06/09

140

QC21- Final Inspection - Work Order Release

0.00

140

QC

Memo

0.00

Quality Control

16/6/9
Lm 16/06/09

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause				FAULT CATEGORY			
Environment ☐	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design ☐	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data ☐	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling ☐	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre ☐	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material ☐	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport ☐	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge ☐	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA ☐	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation ☐	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date ☐	☐	Manufacturing Process	☐	OTHER : _____			
Misidentified ☐	☐	Past Due	☐				

Picklist Print

Thursday, May 05, 2016 3:14:45 PM

Page 1

Work Order ID: 145487

145487

Parent Item: D119-796-021

D119-796-021

Parent Item Name: AW119 Standard Landing Gear Assembly - Standard OEM Protection

Start Date: 5/11/2016

Required Date: 6/9/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A NEW ISSUE 15-05-012 JLM VERIFIED BY:DD IPP
REV:B 15.08.25 AS PER IIN REV.E DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D119-646-041		Manufactured	No			110	Each	0.0000	2	2			DAS 36 9-89
D119-646-041													
Replacement Skidtube with Wearpads, Fits LH or RH													
D119-796-151		Manufactured	No			110	Each	3.0000	1	1			DAS 36 9-89
D119-796-151													
FWD Crosstube Installation with Step (no hardware)													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				FG		3							
				141084		1							
				141085		1							
				141086		1							
D119-796-251		Manufactured	No			110	Each	3.0000	1	1			DAS 36 9-89
D119-796-251													
AFT Crosstube Installation with Step (no hardware)													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				FG		3							
				143547		1							
				143549		1							
				143550		1							
D2652		Manufactured	No			110	Each	351.0000	48	48			DAS 36 9-89
D2652													
Bushing													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				FG		45							
				31985		45							
				ST009		306							
				141609		306							

MAY 26 2016

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause				FAULT CATEGORY					
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER : _____							

Picklist Print

Thursday, May 05, 2016 3:14:45 PM

Page 2

Work Order ID: 145487

145487

Parent Item: D119-796-021

D119-796-021

Parent Item Name: AW119 Standard Landing Gear Assembly - Standard OEM Protection

Start Date: 5/11/2016

Required Date: 6/9/2016

Start Qty: 1.00

Required Qty: 1.00

D3407-041

Manufactured No

110

Each

1.0000

2

2

D3407-041

Tow Ring

**

145210

DAS
6
9-88

Location

Loc Qty

Loc Code

st530

1

142671

1

D3417-5

Manufactured No

110

Each

28.0000

4

4

D3417-5

Washer

**

DAS
6
9-88

Location

Loc Qty

Loc Code

ST035

28

140183

28

D3456-1

Manufactured No

110

Each

110.0000

2

2

D3456-1

Washer

**

DAS
6
9-88

Location

Loc Qty

Loc Code

FG

7

25701

7

ST038

3

141125

3

ST038A

100

141989

50

144158

50

2

MAY 26 1116

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause				FAULT CATEGORY					
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER : _____							

Thursday, May 05, 2016 3:14:45 PM

145487

D119-796-021

Required Date: 6/9/2016

Required Qty: 1.00

DAS
6
9-89

D3672-3

Loc Code

48

213

304

500

500

DAS
6
9-89

D3672-7

Loc Code

25

15

15

38

38

500

500

500

500

**

D3883-1

Loc Code

4

4

Thursday, May 05, 2016 3:14:46 PM

Shop Packet Print

MAY 26 2016
Page 3

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

Thursday, May 05, 2016 3:14:46 PM

Page 4

Work Order ID: 145487

145487

Parent Item: D119-796-021

D119-796-021

Parent Item Name: AW119 Standard Landing Gear Assembly - Standard OEM Protection

Start Date: 5/11/2016

Required Date: 6/9/2016

Start Qty: 1.00

Required Qty: 1.00

D3883-2

Manufactured No

110

Each

1.0000

2

**

142792

DAS
6
9-89

D3883-2

Saddle, Outboard RH

Location

Loc Qty

Loc Code

ST404

1

142276

1

D3884-1

Manufactured No

110

Each

4.0000

2

**

144928

DAS
6
9-89

D3884-1

Saddle, Inboard LH

Location

Loc Qty

Loc Code

ST404

4

142273

4

D3884-2

Manufactured No

110

Each

1.0000

2

**

142761

DAS
6
9-89

D3884-2

Saddle, Inboard RH

Location

Loc Qty

Loc Code

ST404

1

142274

1

D3886-041

Manufactured No

110

Each

0.0000

4

**

142776

DAS
6
9-89

D3886-041

Lug Assembly

MAY 26 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Picklist Print

Thursday, May 05, 2016 3:14:46 PM

Page 5

Work Order ID: 145487

145487

Parent Item: D119-796-021

D119-796-021

Parent Item Name: AW119 Standard Landing Gear Assembly - Standard OEM Protection

Start Date: 5/11/2016

Required Date: 6/9/2016

Start Qty: 1.00

Required Qty: 1.00

AN3C46A	Purchased	No	110	Each	232.0000	8	8	
AN3C46A								DAS
Bolt								6
								9-89

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

FG	10	
122843	10	
OVER002	140	
M133917	70	
M134591	70	
ST346	82	
M132522	34	
M133332	48	

AN3C50A	Purchased	No	110	Each	101.0000	16	16	
AN3C50A								DAS
Bolt								6
								9-89

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

OVER002	50	
M134494	50	
ST346	51	
M133606	49	
M133842	2	

AN4C6A	Purchased	No	110	Each	353.0000	24	24	
AN4C6A								DAS
Bolt								6
								9-89

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

FG	14	
103344	4	
121657	10	
OVER002	300	
m134502	300	
ST345	39	
m133990	39	

Thursday, May 05, 2016 3:14:46 PM

Shop Packet Print

Page 5

MAY 26 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : ☐					

Picklist Print

Thursday, May 05, 2016 3:14:46 PM

Page 6

Work Order ID: 145487

145487

Parent Item: D119-796-021

D119-796-021

Parent Item Name: AW119 Standard Landing Gear Assembly - Standard OEM Protection

Start Date: 5/11/2016

Required Date: 6/9/2016

Start Qty: 1.00

Required Qty: 1.00

MS21043-3

Purchased

No

110

Each

943.0000

24

24

DAS

MS21043-3

Nut

6
9-89

Location

Loc Qty

Loc Code

FG

80

103691

80

FP001

11

m130673

11

GA

385

m133990

385

ST302

361

m134502

361

ST304

106

m131340

106

24

MS21043-4

Purchased

No

110

Each

889.0000

26

26

DAS

MS21043-4

Nut

6
9-89

Location

Loc Qty

Loc Code

FG

40

104603

40

GA

95

m132803

95

OVER007

300

m134502

300

ST302

454

m133769

12

m134249

142

m134634

300

26

MAY 26 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : ☐	

Picklist Print

Thursday, May 05, 2016 3:14:46 PM

Page 7

Work Order ID: 145487

145487

Parent Item: D119-796-021

D119-796-021

Parent Item Name: AW119 Standard Landing Gear Assembly - Standard OEM Protection

Start Date: 5/11/2016

Required Date: 6/9/2016

Start Qty: 1.00

Required Qty: 1.00

MS21043-5

Purchased

No

110

Each

208.0000

8 8

MS21043-5

Nut

DAS

6

9-89

Location

Loc Qty

Loc Code

FG

20

101418

20

GA

76

116548

76

ST302

112

m132382

12

m134502

100

MS21250-05048

Purchased

No

110

Each

50.0000

8 8

MS21250-05048

Bolt (use MS21250-05-048)

DAS

6

9-89

Location

Loc Qty

Loc Code

over006

50

m133694

50

NAS1149C0332R

Purchased

No

110

Each

3,049.000

24 24

NAS1149C0332R

WASHER

DAS

6

9-89

Location

Loc Qty

Loc Code

FP001

1582

m132262

4

m132930

1004

m134063

446

m134073

128

GA

225

m133284

225

ST266

1242

m134474

142

m134574

1000

m134654

100

24

MAY 26 2016

Thursday, May 05, 2016 3:14:46 PM

Shop Packet Print

Page 7

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause			FAULT CATEGORY							
Environment ☐	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design ☐	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data ☐	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling ☐	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre ☐	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material ☐	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport ☐	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge ☐	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA ☐	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation ☐	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date ☐	☐	Manufacturing Process	OTHER : _____							
Misidentified ☐	☐	Past Due								

Picklist Print

Page 8

Thursday, May 05, 2016 3:14:46 PM

Work Order ID: 145487

145487

Parent Item: D119-796-021

D119-796-021

Parent Item Name: AW119 Standard Landing Gear Assembly - Standard OEM Protection

Start Date: 5/11/2016

Required Date: 6/9/2016

Start Qty: 1.00

Required Qty: 1.00

NAS1149C0432R

Purchased

No

110

Each

1,857.000

48

48

NAS1149C0432R

DAS
6

WASHER

9-89

Location

Loc Qty

Loc Code

GA

428

m125807

428

ST266

1429

m134073

429

m134676

1000

2/8

NAS1149C0532R

Purchased

No

110

Each

241.0000

16

16

NAS1149C0532R

DAS
6

WASHER

9-89

Location

Loc Qty

Loc Code

GA

60

116513

60

ST266

181

m133031

177

m134181

4

16

139x89x35crate

Purchased

No

110

Each

3.0000

1

1

139x89x35crate

Agusta Crate

DAS
6
9-89

MAY 26 2016

Thursday, May 05, 2016 3:14:46 PM

Shop Packet Print

Page 8

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	Past Due ☐						

Picklist Print

Page 9

Thursday, May 05, 2016 3:14:46 PM

Work Order ID: 145487

145487

Parent Item: D119-796-021

D119-796-021

Parent Item Name: AW119 Standard Landing Gear Assembly - Standard OEM Protection

Start Date: 5/11/2016

Required Date: 6/9/2016

Start Qty: 1.00

Required Qty: 1.00

MS21920-28

Purchased

No

Each

45.0000

2

MS21920-28

Clamp

Location

Loc Qty

Loc Code

FG

1

105884

1

LG051

1

M132169

1

LG057

43

M134130

2

M134514

3

M134590

38

DAS
6
9-89

MAY 26 2016

Thursday, May 05, 2016 3:14:46 PM

Shop Packet Print

Page 9

DQA: _____ Date: _____



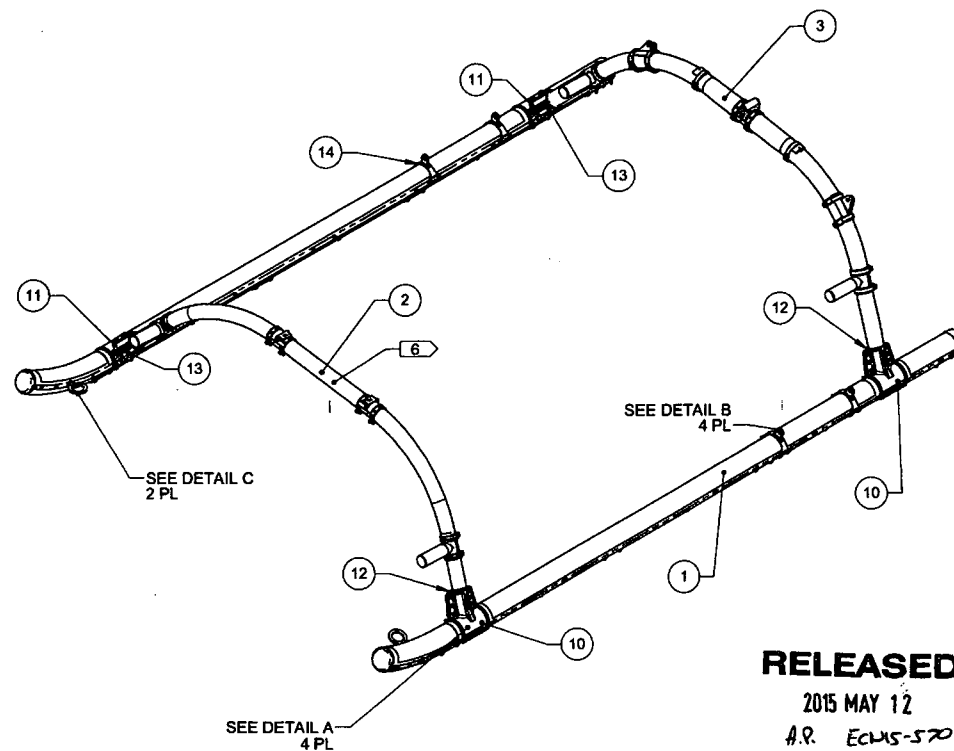
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

ITEM	QTY -021	P/N	DESCRIPTION
	X	D119-796-021	STD GEAR WITH STD WEARPADS
1	2	D119-646-041	STD SKIDTUBE WITH STD WEARPADS
2	1	D119-796-151	XTUBE ASSY (AW119 MKII FWD)
3	1	D119-796-251	XTUBE ASSY (AW119 MKII AFT)
4	48	D2652	BUSHING
5	2	D3407-041	TOW RING
6	4	D3417-5	WASHER
7	2	D3456-1	WASHER
8	48	D3672-3	PHENOLIC WASHER
9	48	D3672-7	PHENOLIC WASHER
10	2	D3883-1	SADDLE, OUTBOARD LH
11	2	D3883-2	SADDLE, OUTBOARD RH
12	2	D3884-1	SADDLE, INBOARD LH
13	2	D3884-2	SADDLE, INBOARD RH
14	4	D3886-041	LUG ASSEMBLY
15	8	AN3C46A	BOLT
16	16	AN3C50A	BOLT
17	24	AN4C6A	BOLT
18	24	MS21043-3	NUT, SELF-LOCKING
19	26	MS21043-4	NUT, SELF-LOCKING
20	8	MS21043-5	NUT, SELF-LOCKING
21	8	MS21250-05048	BOLT
22	24	NAS1149C0332R	WASHER
23	48	NAS1149C0432R	WASHER
24	16	NAS1149C0532R	WASHER



RELEASED

2015 MAY 12

A.R. ECWS-570

D119-796-021 STD GEAR WITH STD WEARPADS

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: N/A
- 4) UNITS: N/A
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: INSTALL D2729-4 RED DECAL IN LOCATION SHOWN
- 7) WEIGHT: 122.7 LBS

APPROVED	A	NEW ISSUE	AP	15.04.01
	REV.	DESCRIPTION	BY	DATE
	DESIGN	AP	DART AEROSPACE LTD	
	DRAWN	AP	HAWKESBURY, ONTARIO, CANADA	
	CHECKED	AJS	DRAWING NO.	REV. A
	MFG. APPR.	DD	D119-796-021	SHEET 1 OF 4
	APPROVED	HS	TITLE	SCALE
	DE APPR.	DS	STD GEAR WITH STD WEARPADS	NTS
	DATE	15.04.01	COPYRIGHT © 2014 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

w/o 145487

2m 16/05/06

MS21250-05048 BOLT
NAS1149C0532R WASHER
D3672-7 WASHER
2 PL
10

D3883-1 SADDLE (LHS)
D3883-2 SADDLE (RHS)

AN3C50A BOLT
D3672-7 WASHER
D2652 BUSHING
4 PL
10

D3884-1 SADDLE (LHS)
D3884-2 SADDLE (RHS)

D3672-7 WASHER
NAS1149C0532R WASHER
MS21043-5 NUT
2 PL
10

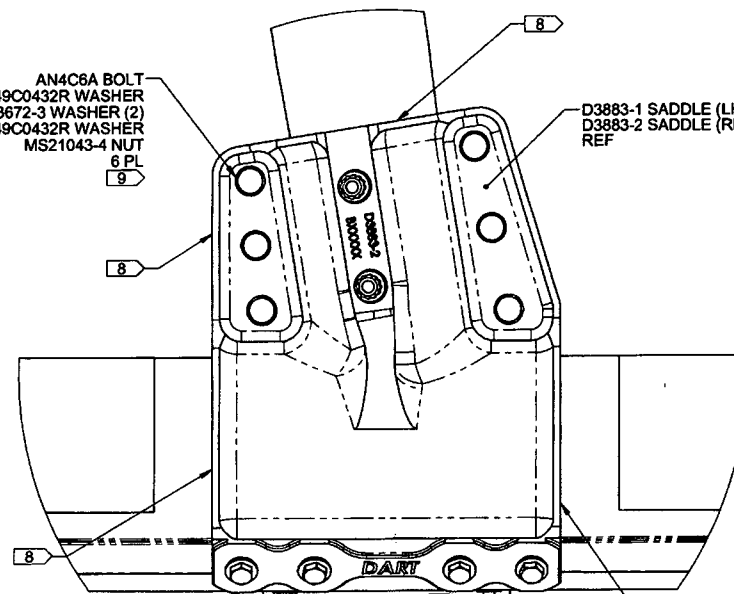
D2652 BUSHING
D3672-7 WASHER
NAS1149C0332R WASHER
MS21043-3 NUT
4 PL
10

DETAIL A
4 PL



AN4C6A BOLT
NAS1149C0432R WASHER
D3672-3 WASHER (2)
NAS1149C0432R WASHER
MS21043-4 NUT
8 PL
9

D3883-1 SADDLE (LHS)
D3883-2 SADDLE (RHS)
REF



DETAIL A



NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: N/A
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: N/A
- 8) APPLY A CONTINUOUS BEAD OF SIKAFLEX -241/-291 OR PROSEAL 890 OR MIL-S-8802 CLASS B2 SEALANT IN THE LOCATIONS SHOWN INCLUDING THE FOLLOWING:
 - A) ALONG SADDLE/CROSSTUBE INTERFACE
 - B) BETWEEN THE SADDLE FLANGES
 - C) ALONG SADDLE/SKIDTUBE INTERFACE
- 9) LIGHTLY TIGHTEN ALL BOLTS IN THE NUMERICAL ORDER SPECIFIED ON SHEET 3, THEN TIGHTEN TO SPECIFIED TORQUE IN TABLE 1.
- 10) INSTALL WET WITH SIKAFLEX -241/-291 OR PROSEAL 890 OR MIL-S-8802 CLASS B2 SEALANT
- 11) ALL NUTS TO BE INSTALLED ON THE INBOARD SIDE

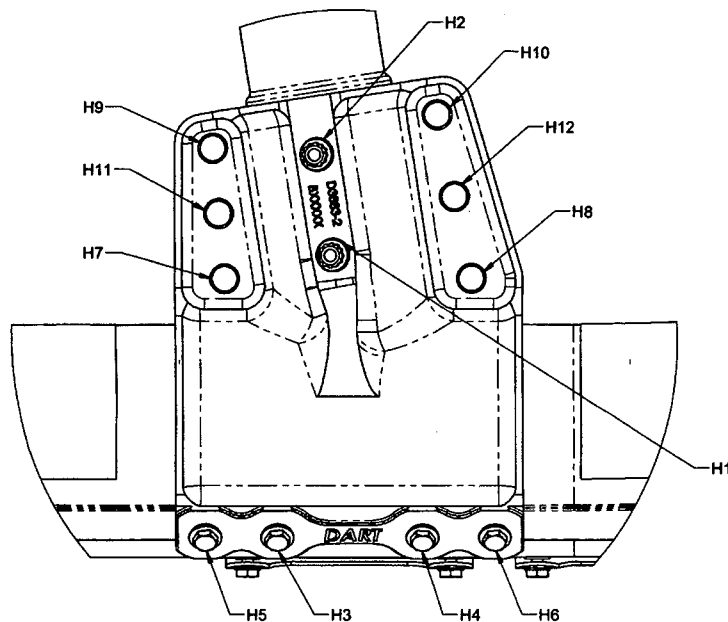
RELEASED

2015 MAY 12

A.P. Ew 15-570

APPROVED

DESIGN	AP	DART AEROSPACE LTD	
DRAWN	AP	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AJS	DRAWING NO.	REV. A
MFG. APPR.	DD	D119-796-021	SHEET 2 OF 4
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	STD GEAR WITH STD WEARPADS	NTS
DATE	15.04.01	COPYRIGHT © 2014 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY MANNER WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



SUPPLEMENTAL VIEW - TORQUE SEQUENCE

TABLE 1: TORQUE SEQUENCE AND MAX TORQUE

TORQUE SEQUENCE	PART NUMBER	TORQUE
H1	MS21250-05048	66-85 IN-LBS (7.3 - 9.6 N-m)
H2	MS21250-05048	66-85 IN-LBS (7.3 - 9.6 N-m)
H3	AN3C50A	15-25 IN-LBS (1.7 - 9.6 N-m)
H4	AN3C50A	15-25 IN-LBS (1.7 - 9.6 N-m)
H5	AN3C50A	15-25 IN-LBS (1.7 - 9.6 N-m)
H6	AN3C50A	15-25 IN-LBS (1.7 - 9.6 N-m)
H7	AN4C6A	50-70 IN-LBS (5.7 - 7.9 N-m)
H8	AN4C6A	50-70 IN-LBS (5.7 - 7.9 N-m)
H9	AN4C6A	50-70 IN-LBS (5.7 - 7.9 N-m)
H10	AN4C6A	50-70 IN-LBS (5.7 - 7.9 N-m)
H11	AN4C6A	50-70 IN-LBS (5.7 - 7.9 N-m)
H12	AN4C6A	50-70 IN-LBS (5.7 - 7.9 N-m)

RELEASED

2015 MAY 12

A.R. EN 15-570

APPROVED

DESIGN	AP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AP		
CHECKED	AJS	DRAWING NO.	REV. A
MFG. APPR.	DD	D119-796-021	SHEET 3 OF 4
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	STD GEAR WITH STD WEARPADS	NTS
DATE	15.04.01	COPYRIGHT © 2014 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

